

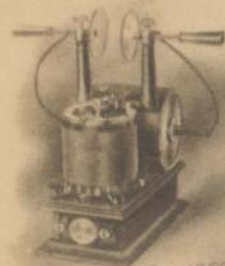
A portrait of Nikola Tesla, a man with a mustache, wearing a dark suit and white shirt. He is holding a glowing light bulb in his right hand and resting his chin on his left hand. The background is dark, and the light from the bulb illuminates his face and hand.

NIKOLA TESLA

The Man who Lit up the World

To mark the 150th anniversary of the birth of Nikola Tesla, the Croatian History Museum, Zagreb and the Technical Museum, Zagreb created this exhibition.

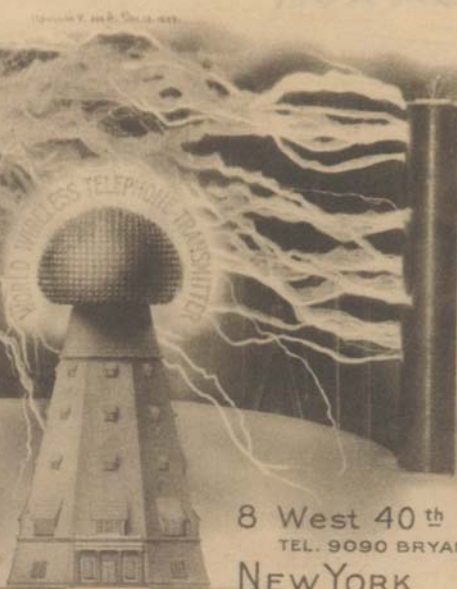




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5



Tesla sitting in front of the spiral secondary high frequency transformer, with the book of Ruder Bošković, "Theoria Philosophiae Naturalis", at 46 East Houston Street, New York

My belief is firm in the law of compensation. True rewards
are ever in proportion to the labor and sacrifices made.

On the display

This display, in images, words and sounds, presents the life and brilliant mind of the great inventor Nikola Tesla (Smiljan, Croatia, 1856 - New York, USA, 1943).

The multi-layered historical events that accompany Tesla's journey from Smiljan to America are woven into the timeline, and Tesla's pictures and his own thinking, recorded in the autobiographical work "My Inventions", will be your guide through the exhibition.

Tesla's journey in life starts with his childhood in his native Smiljan, in a warm family home and the lovely landscape at the foot of Bogdanić Hill, alongside the Vaganac Stream. His education in Smiljan, in Gospić and Rakovac, his student days in Graz, his life in an array of European cities and finally in America, as well as his short visits to his homeland, are presented in documentary materials.

Tesla's personality was always a magnet for attention, but even today it is still little known. Neither as scientist nor

as man was he ordinary. Only a small part of his habits, his all-round interests, eccentricity and awareness of his own mission can be found in his own thoughts which will discover to you, at least a little part of the inventor's secret life.

But above all, Tesla was a man of brilliant inventions, an inventor. He was a wizard of electricity and light. This exhibition will reveal to you the world of his mind and his fascinating inventiveness during his research work. Here are his most important inventions, which changed the world and contributed to its progress, and even today represent the foundation of the most up-to-date technologies.

The things and events that Tesla predicted, as scientist and humanist, are part of our everyday life and the world as we know it; hence we believe that you will relish the discovery of a brilliant mind in the context of his dazzling vision of the future.



The birth house of Nikola Tesla and the Church of SS. Peter and Paul in the Orthodox Parish of Smiljan

- 1856** On the night of July 9-10, exactly at midnight, when thunder was flashing in the sky over Smiljan, Nikola Tesla was born
- 1862** Nikola Tesla went to the first grade of the Krajina Lower School in Smiljan, in which he learned German, arithmetic and religious knowledge
- 1863** After the death of the fourteen year old Dane, the Tesla family moved to Gospić, where Nikola went to the Preparatory Elementary School
- 1866** The Teslas enrolled Nikola in the Real High School in Gospić
- 1870** Tesla attended the Senior Real High School in Rakovac by Karlovac, which, organised along German and Austrian lines, was one of the best. Martin Sekulić (1833-1905) taught Tesla maths and physics.
- 1873** After matriculating in Rakovac, Tesla went home, and was ill with cholera for nine months
- 1874** Tesla went to convalesce in Tomingaj by Gračac
- 1875** Tesla enrolled in the course at the Polytechnic College in Graz, on a Military Border scholarship
- 1876** The demobilisation of the Military Border meant that Tesla no longer had a scholarship, and could not enrol in the second year. Attempting to make ends meet, he took up card-playing, billiards and gambling.
- 1878** Tesla left the Polytechnic in Graz before the exams for the third year
- 1879** Tesla was briefly employed in Maribor. After the death of his father, he worked for a short time in the Real High School in Gospić.
- 1880** Tesla left for Prague. He did not manage to enrol in the University, but attended lectures and went to the library, where he kept up with new departures in electrical engineering.
- 1881** Tesla was employed in Budapest in the Central Telephone Office of Hungary as technical draughtsman. He took part in the construction of the first telephone exchange in the city and for two years worked on the enlargement of the network.



A Short History of the Homeland of Nikola Tesla

During the middle of the 19th century, at the dawn of a civil society, the Croatian lands — of Croatia, Slavonia, the Croatian and Slavonian Military Border, Istria and Dalmatia — were disunited and economically neglected. Civil or provincial Croatia and Slavonia belonged to the Hungarian, and Dalmatia and Istria to the Austrian, part of the Habsburg Empire. The Croatian and Slavonian Military Border was a separate territory on its own, detached, and immediately subordinate to the Austrian military administration.

The Military Border was created in the second half of the 15th and during the 16th century, to form a defensive zone for the Kingdom of Croatia and the other countries of the Habsburgs against the Ottomans, as a result of whose increasingly frequent and successful incursions the Croatian nobility had lost its economic and military strength, and fallen into ever greater dependence on the Habsburgs. Thus at the end of the 16th century started the process in which the Croatian and Slavonian Military Border became an area outside the jurisdiction of the Croatian Parliament and the Croatian ban or governor. The procedures of the Austrian military authorities were suited by the colonising Vlach population that during the 16th century had, in several waves, settled in the ravaged provinces of Croatia. Invoking the Vlach Right that they had enjoyed in the Ottoman Empire and with the act of the Habsburg rulers that confirmed their privileges in exchange for the performance of military service, this new population, in their refusal to acknowledge the Croatian parliament and ban, created the grounds for the separation of the Border — Krajina — territory, not only as a military creation, but also as a territory inhabited by a population with a distinctive social development, different from that in the other lands of the Croats.

During the course of the liberation wars against the Ottomans, which resulted in the treaties of Karlowitz (1699) and Požarevac (1718), the major part of the Kingdom of Croatia was set free (parts of the northern coastline, Lika, Eastern Slavonia and Syrmium). This ended the period in which the Military Border existed as a defensive zone for the whole of Central Europe, and it simply turned into an inexhaustible source of revenues and soldiery which the Habsburg Empire employed in many European battlefields in the defence of its dynastic and political interests. The reorganisations that ensued endeavoured to unify and centralise the Border system along the lines of the regular imperial army and to equalise their entitlements and

obligations, while abolishing the last remains of the Borderers' right to self-government.

In the mid-18th century, the territory of the Croatian and Slavonian Military Border was divided into new units of military government: there were four general commands and 12 regiments, each one of which was divided into 12 captaincies. When the Lika Regiment was founded, headquartered in Gospić, in 1746, the 11th Smiljan Captaincy was also set up.

The progressive development of man is vitally dependent on invention. It is the most important product of his creative brain. Its ultimate purpose is the complete mastery of mind over the material world, the harnessing of the forces of nature to human needs. This is the difficult task of the inventor who is often misunderstood and unrewarded. But he finds ample compensation in the pleasing exercises of his powers and in the knowledge of being one of that exceptionally privileged class without whom the race would have long ago perished in the bitter struggle against pitiless elements.



Copy of the honorary doctorate from Zagreb University in 1926

- 1882** Walking in a Budapest park Tesla suddenly hit upon the principle of the rotating magnetic field. In autumn he went to Paris and got a job with Edison's Continental, working to determine the cause of faults in Edison's generating plants.
- 1883** Tesla arrived in Strasbourg, and worked fixing automatic lighting regulators and made the first model of the induction motor. He went to Zagreb to obtain a passport to travel abroad.
- 1884** Tesla left for America with a recommendation from Charles Batchelor in Paris and got a job in the Edison Corporation
- 1885** After breaking with Edison, Tesla founded his own company, Tesla Electric and Manufacturing Company. He worked on perfecting electric arcs, and registered his first patents.
- 1886** A major slump in the USA led to major difficulties for Tesla's firm. Tesla had to support himself with hard labour on the laying of cables and the construction of New York sewers for a pay of two dollars a day.
- 1887** Tesla founded a company Tesla Electric Company with a loan from A. K. Brown, director of Western Union. He applied for his most important patents: the multiphase system for the transmission of electricity, the induction motor and the appropriate transformers and generators.
- 1888** Tesla gave a lecture to the AIEE (American Institute of Electrical Engineers) on the advantages of alternating current. In Pittsburgh he signed a contract with George Westinghouse for the Westinghouse Electric Company.
- 1889** The first visit to Europe after leaving for America. Tesla visited Paris and Lika; he returned to New York, and set up his laboratory in Grand Street. Up to 1892, he lived in the Astor House Hotel.
- 1890** Tesla started to explore high voltage and high frequency electricity in a laboratory at South Fifth Avenue 33-35, NY
- 1891** Tesla obtained American citizenship. He gave a lecture to the AIEE on "Experiments with alternate currents of very high frequency and their application to methods of artificial illumination". He applied for various patents, worked out the "Tesla Coil" and came into conflict with J. J. Thomson, who refuted his discovery of electrons.



Father of Nikola Tesla, Milutin Tesla
(Raduč, 1819. — Gospić, 1879.)

My mother descended from one of the oldest families in the country and a line of inventors. ... She was a truly great woman, of rare skill, courage and fortitude, who had braved the storms of life and past thru many a trying experience. ... My mother was an inventor of the first order and would, I believe, have achieved great things had she not been so remote from modern life and its multifold opportunities. She invented and constructed all kinds of tools and devices ...

I had a brother who was gifted to an extraordinary degree — one of those rare phenomena of mentality which biological investigation has failed to explain. His premature death left my parents disconsolate.



Sisters of Nikola Tesla, Angelina, Milka and Marica, later married to Serbian Orthodox priests in the families of Trbojević, Glumičić and Kosanović

The basic Border laws of 1807 and 1850 governed all the areas of the social and economic life of the Borders, and were aimed at discouraging any economic and civil initiatives as well as the efforts of the Croatian Parliament to join the Military Border to Croatia proper and to put it under the jurisdiction of ban and parliament.

I past thru dreadful diseases and met with all kinds of odd mishaps and that I am hale and hearty today seems like a miracle. But as I recall these incidents to my mind I feel convinced that my preservation was not altogether accidental.

In the 19th century the people of the Border lived inside their own extended families, each living in its own compound and with its own land, which with their patriarchal, military and agrarian organisation, were the basis for the civilian and military lives of the Borderers. In the extended family, every member had his or her own military and agricultural duties, which were hard to adjust to each other. There was a very low level of literacy; the population was engaged principally in livestock-raising and agriculture, and there was little in the way of commerce or artisanship. Commercial relationships were practically unknown, revenues were small, and money in short supply. The destinies of male children were predetermined by their birth. Every able male was between the ages of 16 and 60 liable to military service. The only choice he had was between the army and the ministry. This constant liability to call up did not help the development of either the economy or education, the main aim of which was to prepare the necessary number of young men for military service and to teach them German — the official language of the Border army and the administration. The professional and intellectual classes were composed of those Borderers who occupied military, civil and religious posts, the confessions being Roman Catholic, Orthodox, Uniate, Jewish and Protestant. The life and organisation of the Orthodox Vlachs was much influenced by the Serbian Orthodox Church, which laid the foundation for the subsequent national formation of the Serbs in Croatia, which would come out particularly in the 1860s.

In the mid-19th century, as part of the processes in which the administration was modernised and in the efforts that were being made to unify Croatia, the first censuses were taken. According to the statistical and topographic data assembled at the initiative of the gubernatorial government, in the parish of Smiljan in 1850 there were 2200 Catholics and 1984 Orthodox; in a report from the Catholic parish, there were said to be 2200 Catholics and 808 "Greek-Non-Uniate". The Smiljan Captaincy, according to the data from the "Geographical Dictionary" of 1866 covered 24 villages and 40 hamlets, with 848 houses, in which

there was a total population of 8309, 6879 of them Roman Catholic, and 1430 of the Greek Orthodox religion.

The Orthodox Parish of the Church of SS. Peter and Paul was probably formed in about 1764. The size of the Orthodox population in the area around Bogdanić Hill (the hill at the foot of which the birth house of Nikola Tesla now stands) increased after 1838, when Smiljan became the parish centre, in which, from 1852 to 1863, Milutin Tesla, Nikola Tesla's father, served as priest.

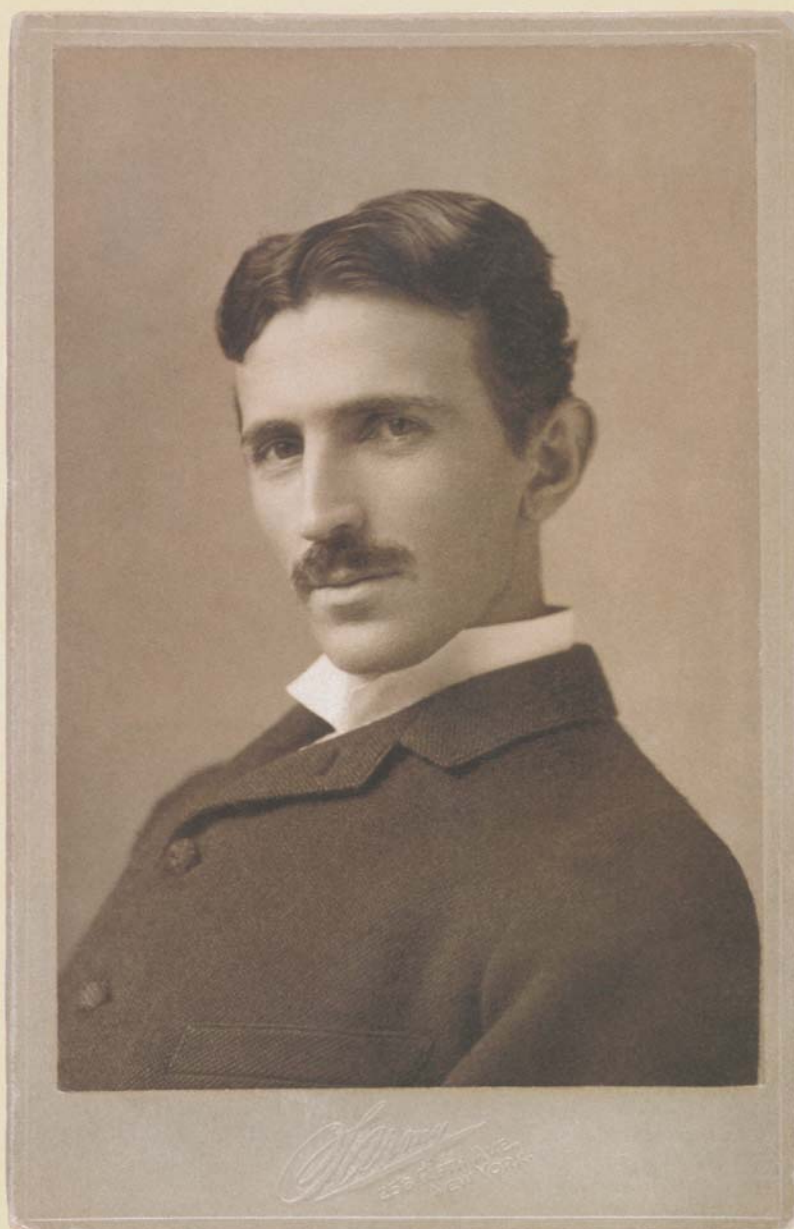
When the Croatian and Slavonian Military Border was demobilised in 1873, the Lika Border Regiment ceased to exist, and so, accordingly, did the Smiljan Captaincy.

With the demobilisation and the introduction of the civil system of government, the population became able to move around outside their own extended families. The intellectuals among them, few though they were, had a crucial impact on the processes of the democratisation and unification of Croatia.

I do not think that any excitement that can set the human heart aflutter can compare with what is felt by the inventor when he sees that something he has thought up in his own brain has is successful... Such feelings lead to a man forgetting food, eating, friends, love, absolutely everything.

When the Croatian and Slavonian Military Border was abolished in 1881, and the area was annexed to Civil Croatia and Slavonia, the centuries-long separation of Croatia and Slavonia was at last ended. At these important moments in politics, Tesla was living in Budapest, and was not far off his very first invention.

Mateja Brstilo Rešetar



I do not regret that others have stolen my ideas,
rather that they have none of their own.

NIKOLA TESLA brilliant mind and exceptional man

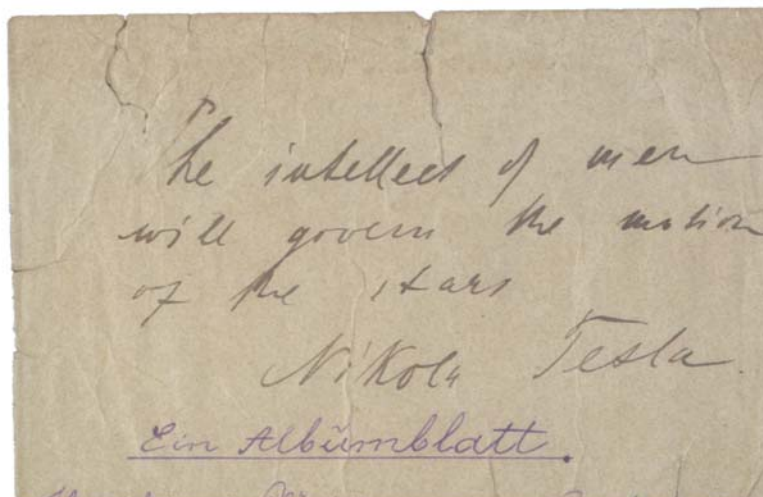
Far from his laboratory, his inventions and achievements, Tesla has to this day in his conduct and habits remained a mystery to all who would like to become better acquainted with his life. What lay behind this brilliant mind?

A man, with both weakness and numerous virtues. In his appearances in society, when he spoke, his eloquence left contemporaries speechless. They all longed to be a part of his circle and at least briefly to peek into the private life of the inventor so woven round with stories.

As cosmopolitan and philanthropist, Tesla went into everything with a great deal of ardour, sincerity and probity - features upon which today a value is rarely set. He had very few sincere and close friends. He spent the last years of his life feeding and caring for the pigeons at the window of his hotel room. His all-roundness, his impeccable elegance, his sense for a fine and carefully meditated choice of friends are the main lines of his powerful personality, while on the other hand an exaggerated modesty and an ascetic lifestyle and his eternal obsessions made him extraordinary and inscrutable.

Physically very impressive, almost two metres tall, of an exceptional physical endurance, with brilliant reflexes and very strong even in his eightieth year. His polish and prodigious education left his American friends and foes breathless. He was untouchable and superior in every respect. A man who transcended the boundaries of space and time.

Matea Brstilo Rešetar

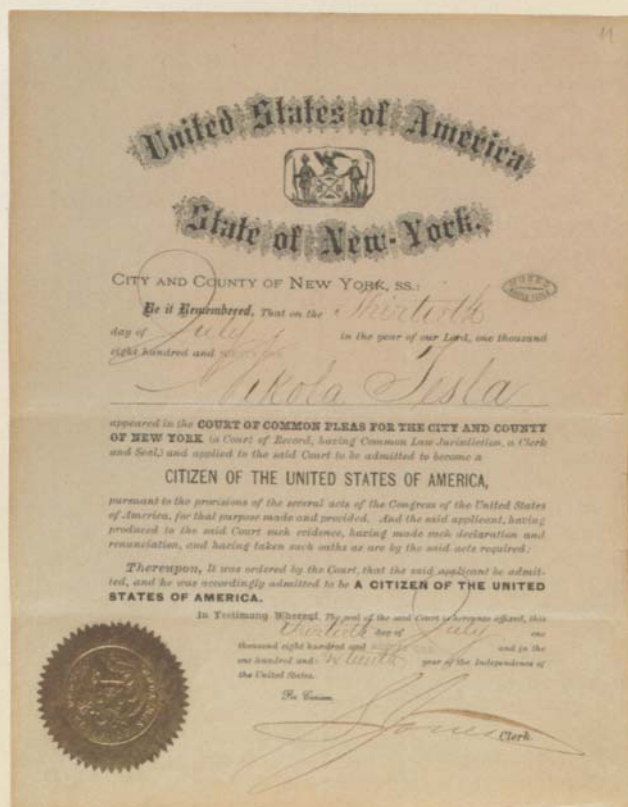


The intellect of men will govern the motion of the stars. / Nikola Tesla /

- 1892** Tesla's second visit to Europe started with lectures in London and Paris. In April he had to bury his mother. He visited Budapest, Zagreb and Belgrade. In Zagreb he gave a lecture about the advantages of alternating current and the construction of a hydroelectric generating station at Plitvice Lakes. He moved into the New York Hotel Gerlach. He was elected vice-president of the AIEE for two years.
- 1893** The World Exhibition was held in Chicago, the first to be dedicated to advances in electrical engineering. Tesla and Westinghouse triumphed in their presentation of the power of alternating current. In St. Louis, Tesla publicly presented the principles of communicating via radio.
- 1894** Thomas Camerford, editor of "Electrical World" and vice-president of the AIEE published the first book on Tesla's research. Tesla became acquainted with members of the Johnson family, who were to become his close friends.
- 1895** On March 13 a fire broke out in Tesla's laboratory, preventing him from developing the discovery of X-rays and publishing the discovery of electrons. He set up a new laboratory in East Houston Street 46-48, from which in July the only earthquake in Manhattan was recorded.
- 1896** Niagara Falls hydroelectricity power station opened. Tesla applied for a patent for an ozone producing device. He became an honorary member of the Yugoslav Academy of Sciences and Arts in Zagreb.
- 1897** Tesla patented a series of inventions that formed the basis for contemporary radio engineering. He explored the possibilities of the wireless transmission of energy and applied for a patent for the electrical ignition of petrol engines. He lived in the Hotel Waldorf-Astoria.
- 1898** Tesla demonstrated a model of a ship that he guided remotely with the use of electromagnetic waves, and applied for a patent for remote control.
- 1899** Tesla started up a laboratory in Colorado Springs. He investigated high frequency current, discovered stationary waves and perfected a high frequency transformer known as the "Tesla transformer". He received the first radio waves from the stars and discovered the technique known today as "listening to the stars".



A reception with a group of governors in honour of Henry Clews, New York, 1910



Certificate of the granting of American citizenship in 1891

The door opens and out steps a tall figure — over six feet high — gaunt but erect. It approaches slowly, stately. You become conscious at once that you are face to face with a personality of a high order. A winning smile from piercing light blue-gray eyes, set in extraordinarily deep sockets, fascinates you and makes you feel at once at home. You are guided into an office immaculate in its orderliness. Not a speck of dust is to be seen. No papers litter the desk, everything just so. Dressed in a dark frock coat, he is entirely devoid of all jewelry. No ring, stickpin, or even watch-chain can be seen. Tesla speaks — a very high almost falsetto voice. He speaks quickly and very convincingly. It is the man's voice chiefly which fascinates you. As he speaks you find it difficult to take your eyes off his own. Only when he speaks to others do you have a chance to study his head, predominant of which is a very high forehead with a bulge between the eyes — the never failing sign of an exceptional intelligence. Then the long, well-shaped nose, proclaiming the scientist.

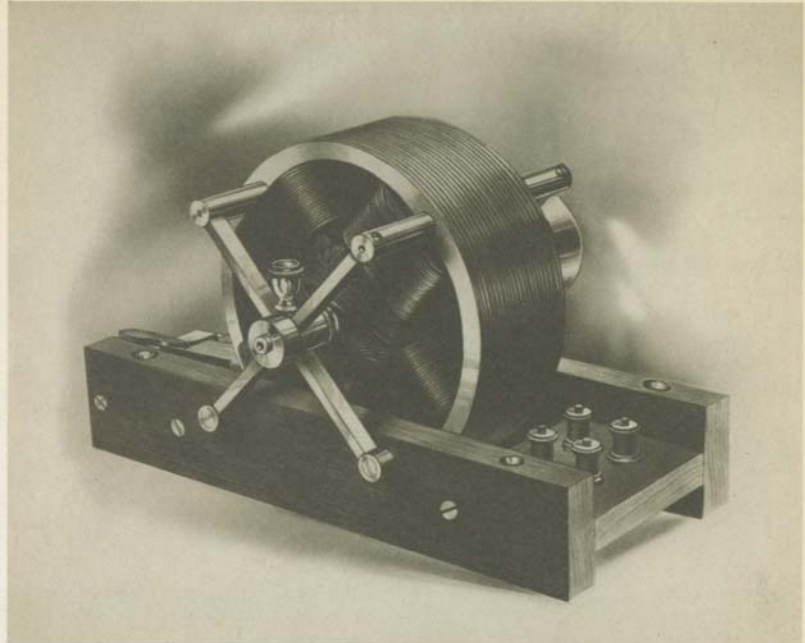
[Hugo Gernsback, "Nikola Tesla — The Man"]

Friends of mine often remark that my suits fit me like gloves but they do not know that all my clothing is made to measurements that were taken nearly 35 years ago and never changed. ... Now, my well-being is simply the result of a careful and measured mode of living...

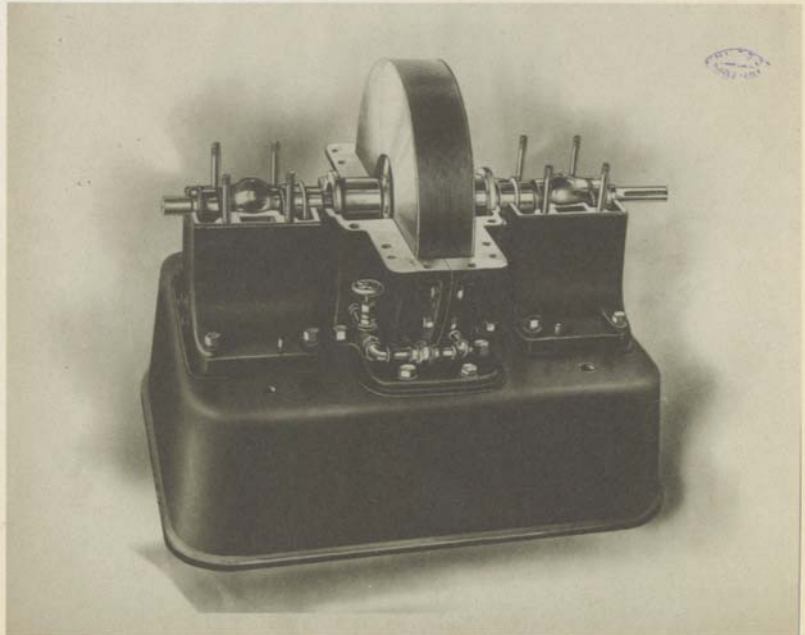


Mark Twain in Tesla's laboratory

- | | |
|------|--|
| 1900 | At Long Island by New York Tesla erected a tower for the world wireless transmission system with the financial help of millionaire J. P. Morgan |
| 1901 | Guglielmo Marconi, making use of Tesla's experiments, managed to create a wireless telegraphic link between Europe and North America |
| 1905 | Tesla opened up an office at Broadway 165 |
| 1906 | Millionaire J. P. Morgan gave up on financing the building of the Tesla World system of wireless transmission on Long Island. Tesla constructed a speedometer. |
| 1907 | Tesla made the first model of a turbine using the new system of using fluid energy by friction |
| 1908 | Tesla's model of a bladeless turbine was tested |
| 1909 | Up to 1922, Tesla was engaged with discoveries related to mechanical engineering. He made sketches and calculations for airplanes, tested out steam and gas turbines. |
| 1911 | Tesla tested the steam turbine in Edison's generating station in New York |
| 1913 | George Westinghouse died. In the magazine "The Sun", Tesla wrote of the role of science and discoveries in saving mankind from the dangers of war |
| 1914 | Tesla applied for patents for the bladeless turbine, the speedometer, the frequency measurer, the "valvular conduit" and the lightning conductor. He opened an office in what was then the world's highest building, the Woolworth Building. |
| 1915 | After the sale of the stations for the World Wireless Transmission System, Tesla went bankrupt. The "New York Times" announced that Tesla and Edison were to share the Nobel Prize. |
| 1917 | Tesla received the Edison Medal, the highest award of the AIEE. His World Wireless System tower on Long Island collapsed. He printed a description of radar, but spent most of his time feeding pigeons. |
| 1918 | Tesla moved into the Hotel St. Regis, in which he was to live until 1923 |
| 1919 | Tesla's autobiography "My Inventions" came out |



Tesla's electrical motor, 1888



The Tesla Turbine

The inventions of Nikola Tesla

Tesla's inventions and his theoretical work at the end of the 19th and the beginning of the 20th century created the conditions for the electrification of the world via the system of multiphase alternating current, which enabled mass production and a new industrial revolution. With discoveries in the realm of high frequency current and the wireless transmission of electromagnetic waves, he laid the foundation for the development of radio technology, telecommunications and remote controlled machinery, which he referred to as tele-automation. Tesla's vision and research assisted in the invention of radar, and contributed greatly to the development of lighting systems. The wireless transmission of great quantities of energy and the working principles of his turbine are still being researched today in an attempt to employ them to the benefit of humanity.

From his childhood, Tesla's inventions were inspired by nature. All the inventions that he made were in accordance with nature and had no harmful impact on the environment. Tesla often thought about natural resources, their limitations and the way they were used. His vision of the future of mankind's energy resources can be seen in this quotation:

The inevitable conclusion is that water-power is by far our most valuable resource. On this humanity must build its hopes for the future. With its full development and a perfect system of wireless transmission of the energy to any distance man will be able to solve all the problems of material existence. Distance, which is the chief impediment to human progress, will be completely annihilated in thought, word and action. Humanity will be united, wars will be made impossible and peace will reign supreme.

Tesla had an uncommon manner of discovering the principles of work and the construction of new devices. First, in his mind, he worked out all the details and actually saw how it worked, and after that, he would sketch everything, prove it in theory, and at the end make a device that would almost immediately start working without any problems. Just how Tesla created his inventions can be seen in this quotation:

When I get a new idea, I start at once building it up in my imagination, and make improvements and operate the device in my mind. When I have gone so far as to embody everything in my invention, every possible improvement I can think of, and when I see no fault anywhere, I put into concrete form the final product of my brain.



Postcard with a picture of the World Wireless Transmission System tower on Long Island

Tesla's laboratories

Tesla spent a large part of his life in laboratories, constructing new devices and showing various experiments to friends and other scientists. He would often spend sleepless nights there until he arrived at a satisfactory solution for some problem or device.

The first laboratory Tesla started up was in 1885, in Rahway, New Jersey, when he founded the firm Tesla Electric Light & Manufacturing Company.

It is more than likely that the daily papers will every day, overnight, by wireless transmission, be delivered to households.

In 1887, he opened a laboratory in New York at 89 Liberty Street, and in 1889 at 175 Grand Street. The best-known Tesla laboratory, in which the scientist spent almost five years (1890-1895), was the one at 33-35 South Fifth Avenue. It was in this lab that a tremendous tragedy occurred: in a fire on March 13, 1895, all of Tesla's drawings, equipment and apparatus disappeared, and he had to start over. Tesla, though, rose phoenix-like from the ashes, and 1895 had not yet drawn to a close when he moved into a laboratory in 46-48 East Houston Street, in which he worked until 1899, when he went off to Colorado Springs. After his return from Colorado Springs, from 1901, Tesla was hard at work on the construction of the World System of Wire-

- 1922 Tesla's favourite pigeon died, and he applied for a patent for vacuum treatment
- 1923 Tesla changed his abode, and now lived in the Hotel Marguery
- 1924 The Hotel St Regis sued Tesla for a debt of \$3299. Tesla got to know the Croatian sculptor Ivan Meštrović (1883-1962).
- 1925 Death of Katharine Johnson, Tesla's friend. Tesla moved to the Hotel Pennsylvania.
- 1926 Tesla became doctor honoris causa at the University of Zagreb. In New York he got to know his nephew Sava Kosanović for the first time (1894-1956).
- 1928 Tesla applied for a patent for a plane with vertical takeoff capacity "Apparatus for Aerial Transportation" (today the V/STOL, vertical/short takeoff and landing plane)
- 1930 Tesla was involved with advances in the sulphur, iron and copper production processes. He lived in the Governor Clinton Hotel.
- 1931 Thomas Alva Edison died. To mark his 75th birthday, Tesla appeared on the cover of "Time", and received the congratulations of many scientists.
- 1934 Tesla moved into the Hotel New Yorker, suite no. 3327, in which he lived until his death
- 1936 Tesla proposed projects for the making of a defence weapon known as the "death ray". In the Ban's Palace in Zagreb, a celebration of Tesla's 80th birthday. Vladko Maček sent Tesla a telegram, to which Tesla replied with thanks, saying that he was equally proud of his Serbian origin and his Croatian homeland.
- 1937 Death of Marconi. Tesla received doctorates honoris causa from the Polytechnic in Graz and the University of Paris. He was involved in a car crash.
- 1941 Tesla addressed a message to world academicians against Nazism and fascism
- 1942 After a long absence from public affairs, Tesla addressed his letter "To My Brothers in America". He appeared in public for the last time during the visit of King Peter II to America.
- 1943 Tesla died on January 7, about 22.30, in suite 3327 on the 33rd floor of the Hotel New Yorker, aged 86. The Supreme Court denied Marconi's primacy in the invention of radio and ascribed the merits for it to Tesla.

Matea Brstilo Rešetar

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NIKOLA TESLA.

Sender's address for reference

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A telegram from Vladko Maček to Nikola Tesla on the occasion of his eightieth birthday. Tesla replied with thanks to the congratulations sent him saying that he was equally proud of his Serbian birth and Croatian homeland.

less Transmission in Wardencllyffe, Long Island. He stayed there until 1912, when the project finally went under.

Afterwards, Tesla was in constant financial difficulties, and he mainly hired just offices in New York for his work. He opened offices in the Woolworth Building, 165 Broadway and 1 Madison Avenue (202-203 Metropolitan Tower), while in 1915-1924 he occupied an office at 9 West 40th Street (across the road from the New York Public Library). After that, he also used an office at 350 Madison Avenue.



In the photograph, from left to right, are Victor Beam, his secretary and Nikola Tesla, around the alternator that Beam had found in the Westinghouse stores. The alternator was salvaged from the fire in the laboratory that broke out on March 13, 1895.

Tesla's last inventions, letters, decorations and honours

In 1906 Tesla showed how the bladeless turbine worked, later known as the Tesla turbine, and in 1913 he obtained a patent.

After the turbine, Tesla also patented the water fountain, three speedometers, a lightning conductor, the valvular conduit, a device for measuring flow and frequency, and an airplane suitable for vertical and horizontal flight.

In 1916 he received the Edison Medal, the highest award from the American Institute of Electrical Engineers, and next year, he discovered the frequency and power of radar.

For Tesla's 75th birthday, in 1931, "Time" placed him on its cover.

Tesla received numerous honorary doctorates for his work, from, for instance, Columbia and Yale Universities, Poitiers University, Graz, Vienna and Bucharest Polytech-

Let the future tell the truth, and evaluate each one according to his work and accomplishments. The present is theirs; the future, for which I have really worked, is mine.

nics, and the universities in Belgrade, Brno, Grenoble, Paris, Prague, Sofia and Zagreb.

In honour of this great inventor, unit "tesla" (T) for magnetic induction in the International System of Units (SI) bears his name. In 1975 the Institute of Electrical and Electronic Engineers instituted the Nikola Tesla Prize, awarded to people who have made outstanding contributions in the area of power engineering.

Renato Filipin



Picture of means of transportation and devices from Tesla's visions of the future

Nikola Tesla

The Man who Lit up the World

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